



## THE ASSEMBLAGE CONCEPT TO THE PLACE SENSING URBAN INTERIORS OF ISTANBUL BY A CREATIVE WALKING METHOD

ASIYE NISA KARTAL (A.NISA.GUNDUZ@GMAIL.COM)<sup>1</sup>, HASAN BASRI KARTAL (HBASRIK@GMAIL.COM)<sup>2</sup>

<sup>1</sup> Istanbul Technical University, Architecture Department, Istanbul, Turkiye

<sup>2</sup> Mimar Sinan Fine Arts University, Architecture Department, Istanbul, Turkiye

---

### KEYWORDS

*Assemblage concept  
Multisensory Urban  
Experiences  
Sensewalking  
Historical urban interiors  
in Istanbul*

### ABSTRACT

*Diverse approaches rooted in humanistic and ethnographic backgrounds have examined the place. The Beyoğlu district offers a wide variety of social-spatial experiences within Istanbul's urban interiors. We explored how and through what mechanisms multisensory experiences shape and enhance the assemblages in historical urban interiors. Assemblage thinking is offered not so much as a theory but rather as an intellectual toolkit for understanding how places work. The study employed the "sensewalking" method, a creative, mobile approach, to investigate the visual, auditory, and tactile attributes of urban interiors. The discussion demonstrated that urban assemblages arise from the fluid identities, socio-spatial interconnections, functions, activities, and multisensory experiences. The study benefits urban interior design and planning, as its outcomes support placemaking initiatives and future urban potentials.*

---

Received: 11 / 08 / 2025

Accepted: 21 / 11 / 2025

## 1. Introduction

Urban interiors cannot be categorised as absolute, universal, or non-experiential (Agnew, 2011; Attiwill, 2011, 2020; Henshaw, 2013; Medway, 2014; Soja, 2008; Thibaud, 2011). Different phenomena shape the conception of the urban interior (Jive'n & Larkham, 2003; Lynch, 1995). The building ratio and proportions, street textures, visual components, sounds, smells, colours, kinesthetic features, the softness or sharpness of the street floor materials, linkage of the functions, and opacity of the facades cause attachments to the urban interior (Bull, 2020; Degen & Rose, 2012; Henshaw & Cox, 2009; Mace, 2014; Mattern, 2008) (see Figure 1).

**Figure 1.** The photo reveals an urban interior.

Concept	Key Ideas	Authors
<b>Urban Interior within embodied experiences</b>	The place becomes interior through lived experience; sensory encounters shape interior identity.	Gussow (1971); Cresswell (1992); Manzo & Devine-Wright (2013); Bull (2020)
<b>Phenomenology of Urban Interior</b>	Focusing on users' experiences, meanings, and authentic relations with place.	Relph (1970); Norberg-Schulz (1980)
<b>Everyday Life within the Urban Interior</b>	Urban interior is the container of daily routines, rhythms, and spatial habits.	Beidler & Morrison (2016); Degen (2008); Trejo (2011); Seamon (2013)
<b>Urban Interior as Non-Absolute &amp; Non-Universal</b>	Urban interior cannot be reduced to fixed, universal, or purely objective categories; they are context-dependent and experiential.	Soja (2008); Agnew (2011); Attiwill (2011, 2020); Thibaud (2011); Henshaw (2013); Medway (2014)
<b>Urban Interior shaped by multiple phenomena</b>	Urban interiors emerge from a range of spatial, sensory, social, and functional phenomena.	Lynch (1995); Jivén & Larkham (2003); Sugiarto et al. (2023)

Source: Own elaboration, 2025.

The assemblage idea considers the temporal, spatial, social, and multisensory complexity of urban interiors (Dovey, 2009; Leveratto, 2019; Poot et al., 2015, 2018). It refers to the experiential, material, and representational dimensions of the urban interior. Deleuze and Guattari are primarily associated with the concept of assemblage (Bowden, 2020). Dovey's assemblage approach, a fundamental way of understanding the sensing of the urban interior, refers to the flow of life, people, and materials that create an emergent sense of place (Dovey, 2009).

The Beyoğlu district in Istanbul exemplifies an urban interior with remarkable coherence, characterised by contrasting sensory-spatial elements, connections, and flows (Bartu, 1999; Dokmeci & Ozus, 2005). Taksim Square and Istiklal Street in Beyoğlu serve as a central pedestrian hub that embodies the city's cultural memory, history, intangible heritage, and socio-cultural life (Cezar, 1991; Erem & Şener, 2008). The area has maintained a lively atmosphere characterised by a range of multisensory experiences people experience through their eyes, ears, and skin. The buildings, with their diverse functions (see Figure 2), varied architectural styles, and an eclectic mix of inhabitants and activities, reflect the complex urban assemblages.

**Figure 2.** The first photo shows Taksim Square, with Hagia Triada Church and the newly built Taksim Mosque visible. The second photo shows people walking on Istiklal Street during the day. The third image reveals the Yapi Kredi Cultural Centre on Galatasaray Square. The last photo reveals Tunnel Square. The pictures were taken in July 2023 during the “solo *senswalking*” study.



Source: Own elaboration, 2025.

Taksim Square is a socio-cultural hub renowned for its authentic dessert restaurants, second-hand clothing shops, and boutique hotels in Istanbul's historic district, Turkey. With its central location, well-organised layout, and diverse functions, it is one of Turkey's most significant public spaces, serving a heterogeneous user base. It contains Taksim Mosque, Gezi Park, the Monument of the Republic, the historical Taksim Maksem building (Taksim Water Storage building), as well as *khans* and passages. The square is considered the most complex transportation centre in Istanbul within its extensive transportation network. The area is a popular destination for tourists and Istanbul's native population. Istiklal Street, a long pedestrian street, ends at Taksim Square. The place cannot be defined with abstract geometries (Jackson, 1994; Jorgensen & Stedman, 2001); it is not detached from material form, cultural interpretation and everyday life practices (Pallasmaa, 2011; Salah Ouf, 2001; Sheller & Urry, 2004). The area is distinct in terms of urban affordances. People of all kinds share the urban interior through various spatial usages. Their values, feelings, beliefs, and perceptions shape multisensory urban experiences that occur between individuals and the physical environment. The multisensory urban experiences design the place's activities, meanings, and feelings.

After the 1980s, the urban interiors of Taksim Square and Istiklal Street shifted towards capital-oriented, neoliberal goals. The urban interior has been constantly changing, but due to high-profile renewal projects, its infrastructure, land use, spatial organisation, and activities have been rapidly modified (Dinçer, 2011; Elicin, 2014; Yucesoy, 2008). The multisensory urban experiences, including visual, auditory, and haptic compositions, that make the area distinctive among other urban interiors have been influenced especially since the 2000s (Paramita et al., 2014; Rodriguez & Azenha, 2014).

The study primarily investigated how users perceive multisensory urban experiences. The research questions concerned how the urban interior has been conditioned, lived, and experienced. In this study, we employed the *senswalking* method (Adams & Askins, 2009; Henckel, 2019; Henshaw & Cox, 2009), which combines qualitative research methods of observation, note-taking, and photography. Walking is a fundamental activity that interacts with urban interiors through a sensory-spatial creative performance. The *senswalking* was phenomenological, aiming to gain knowledge of the multisensory dimensions of the urban assemblages in the region. The focus was on the place's visual (based on sight), auditory (based on sound), and tactile (based on haptic features) experiences.

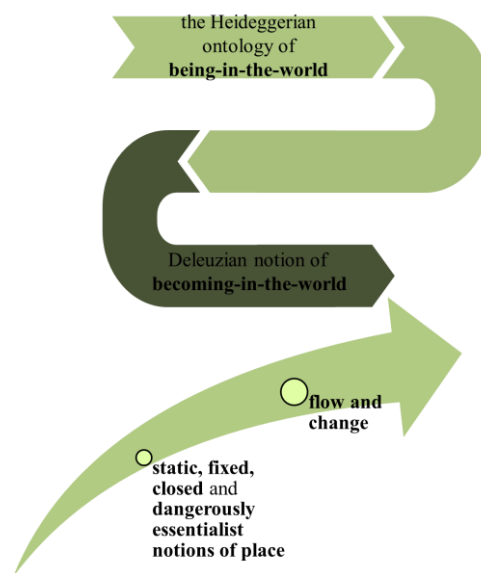
## 2. Literature Review

### 2.1. What do assemblages mean in the place?

We can think about assemblage in diverse ways; there is no general conception of assemblage as a descriptive emphasis on how various components come together. In philosophy, the assemblage idea posits that people, objects, or ideas come together in chance, changeable ways to form wholes that are more than the sum of their parts. Assemblages consist of human and non-human, material and immaterial components that can change over time. Their properties arise from interactions among parts, not any single component. No part fully determines an assemblage's function or identity. Components maintain independence and can join or leave without losing their own identity. The assemblage idea rejects the notion that parts derive their identity solely from the whole. Instead, components maintain their independence, allowing them to be removed and reassigned without losing their identity. Assemblages are depicted as multiplicities based on relational differences, rather than a shared core, allowing diverse elements to coexist (Buchanan, 2017; DeLanda, 2016; Dewsbury, 2011).

Heidegger's ideas regarding the relationship between sensations and urban interiors are intriguing and essential for the concept of assemblage. Urban assemblages depend on bodily senses, which lead to narratives and built forms (Malpas, 2013, 2017). Dovey's notion of assemblage sketches a conception of the urban interior in terms of "becoming-in-the-world". The idea is to create a dynamic, open, and fluid urban interior concept that contrasts with the Heideggerian notion of "being-in-the-world" (Dovey, 2009). This context is also rooted in Deleuzian philosophy of forming and changing (Deleuze & Parnet, 2007; Grosz, 2003). Sensing the urban interior involves becoming part of urban assemblages (Dovey, 2009, 2013). The figure below illustrates how Dovey replaces Heidegger's ontology of "being-in-the-world" with a more Deleuzian notion of "becoming-in-the-world" (Dovey, 2009) (see Figure 3).

**Figure 3.** This graph shows Dovey's replacement for the notion of the urban interior (from Heidegger's approach to Deleuze's approach) under the idea of Dovey (2009).



Source: Own elaboration, 2025.

The assemblage conception is constructed on sensing the urban interior as a socio-spatial composition and embodied habitus. The balance between unity and diversity is an ideal that runs through all depictions of the assemblage. The sensory character of an urban interior is a crucial term that encompasses the physical and social attributes of urban assemblages. The urban interior encompasses both social and material aspects, as well as immaterial elements. Sensing the urban interior is chiefly captured through words such as "sense", "feeling", "identity", or "atmosphere". Urban interiors are social, spatial, fluid, and multifaceted in their relationships between people

and the built form. In the urban interior, multisensory characters are not conceived as fixed, purified, or closed; instead, they are described as diverse, mixed, and dynamic.

## ***2.2. Beyoğlu as an urban interior of urban assemblages***

Istanbul experienced two major growth spurts in the 20th century that greatly influenced its urban landscape. The first occurred during Turkey's industrialisation in the 1950s and 1960s, while the second began in the early 1980s with economic liberalisation. The city has expanded again due to Turkey's integration into global markets. Many old buildings and urban layouts are outdated amid this economic revival. The most recent boom, from 2000 to 2009, saw more planned growth, primarily through formal housing projects undertaken by both the public and private sectors. The population grew rapidly, and Turkey's economy fully integrated into global markets. Income per capita increased, and Istanbul's infrastructure improved significantly during this period. The construction industry played a crucial role in driving this economic upturn. Additionally, the constant threat of earthquakes shapes ongoing and planned urban transformation projects in Istanbul (Dinçer, 2011; Ozus et al., 2011).

Urban interiors are experienced through multiple senses (Bruce et al., 2015; Howes, 2006; Howes & Classen, 2013; Tuan, 1975, 1997). Studies on the relationships between sensory perception and architectural setting (Eberhard, 2007), anatomy and brain-based contexts (Gallese, 2015), and the embodied nature of architectural environments (Mallgrave, 2012, 2013) refer to multisensory experiences. Thanks to the phenomenological philosophies of Merleau-Ponty (1965) and ethnographic practices (Dovey, 2009; Yaneva, 2009), urban interiors are depicted through the influential roles of multisensory traits.

Lefebvre's writings provide a useful set of conceptual tools to reveal the spatiality of the urban interior and the senses. Urban interior is produced through social life and everyday practices. The urban interior's sensory copes are designed with consideration for social relations, physical and social manifestations, and everyday experiences. The urban interior mediates urban identities, dwelling, and everyday life through sensory-spatial practices and material flows (Lefebvre, 2012; Simonsen, 2005).

Dovey designs his assemblage idea to move beyond the view of urban interiors as essentially closed, stabilised, or finished. The urban interior is lived, embodied, structured, ordered, transformed, infiltrated, and negotiated. The urban interior is a dynamic ensemble of people and environment that is both material and experiential, as well as spatial and social. An urban interior that is not abstracted from everyday life. Rather than the abstract phenomenological conceptions, everyday life integrates with socio-spatial relations through the senses. Assemblage operates against any notions of urban interior as contained or stable (Dovey, 2009).

The district of Beyoğlu (in Turkish, Beyoğlu means "the son of lord") is located in the European part of Istanbul, on the other side of the Historical Peninsula, which spans the Golden Horn. Along with the Muslim population, Beyoğlu has had a substantial non-Muslim population since Ottoman times. Various shops catering to the area's inhabitants began to open in the 18th century. Non-Muslim populations brought their traditions, customs, and cultures to the area, making it one of Istanbul's most cosmopolitan regions. In the late 19th century, diverse social groups, including artists, intellectuals, and writers, began to experience the area through various urban activities. It was one of the city's most sophisticated districts and an important centre for experiencing the bohemian atmosphere. Many interesting shops, cafes, nightclubs, and libraries in Beyoğlu have customised the unique urban character (Cezar, 1991; Demirkol-Ertürk & Paker, 2014; Sandıkcı, 2015). Due to the construction of luxury mansions by the native non-Muslim population, the urban interior's physical layout and socio-cultural structure underwent significant changes after the 19th century. With its art galleries, design studios, mosques, churches, and synagogues, the place has an eclectic mix of sensory dimensions (Cezar, 1991; Maessen, 2022).

The historic buildings from the late Ottoman era symbolised the intangible heritage and cultural complexity of the urban interior, as they served to enrich the area's rich and diverse urban fabric. Beyoğlu remained the most prominent region after the first quarter of the 20th century. However, the urban interior was no longer what it had been before, due to multisensory linkages;

daily life experiences associated with different sensory dimensions of the urban interior began to change.

By the end of the 1920s, a differentiation between the lifestyles in Istanbul had begun to emerge after the establishment of the new Turkish Republic. Several distinct trends were observed in the socio-cultural and spatial usage of urban interiors (Kentel, 2018; Maessen, 2021; Woodall, 2008). Visual illustrations of the area depicted various groups from every nationality enjoying new-style taverns and cabarets (Aksoy & Robins, 2011; Ekdi & Çıracı, 2015).

The tangible aspects of the urban interior, where technology, mobility, and materiality are fostered, are critical features of human intervention (Thrift, 2004). Taksim Square and Istiklal Street in Beyoğlu were the testing grounds for the new Republic after the 1920s (Demirkol-Ertürk & Paker, 2014). The urban planner Henri Prost's implementation during the 1930s, essentially in line with the secular Republic of Turkey's vision, changed the area's urban interiors. The Military Barracks, which were used as a football stadium in Taksim Square until 1921, were transformed into a park in 1943 (Maessen, 2017, 2024). Between 1923 and 1950, the Republic of Turkey was characterised by rapid, top-down modernisation. Neither physical urban structures nor urban services were well-suited to meeting new technology-based demands, so buildings and infrastructure required modernisation. Due to the narrow, old, and confined circulation network, Beyoğlu's physical structure was deemed unsuitable for oversized vehicles. The original urban fabric was oriented towards pedestrians, and the area began to be modified for the use of large vehicles (Demirakın, 2006; Tekeli, 2010; Ekdi & Çıracı, 2015).

After the 1960s, the area began to lose its original historic urban fabric due to renovation projects, and Beyoğlu's authentic spatial organisation began to decline as urban deterioration worsened. Beyoğlu was Istanbul's central cultural hub and shopping area until the 1960s, when the city's population began to increase due to migration (Enlil, 2011; Mutman & Turgut, 2018). After the 1970s, the historical territory experienced a demographic shift and was plagued by blighted areas resulting from inadequate urban rehabilitation efforts (Aksoy & Robins, 2011; Özbek, 2020). Due to the destruction, the high-income group relocated to the new regions of Istanbul. Beyoğlu's demography and urban outlook underwent significant changes until the late 1980s (Aksoy & Robins, 2011; Ertep, 2009; Sandıkçı, 2015).

In the urban interior, following the waves of globalisation in the 1980s, misguided and harsh urban interventions were implemented. The urban interventions have resulted in renovations, modifications, and the demolition of the historical building fabric of the area. Then, some protections were implemented to prevent the architectural and socio-cultural deterioration of Istiklal Street (Dokmeci & Ozus, 2005; Enlil, 2011; Ertep, 2009). The Association for the Beautification and Preservation of Beyoğlu was founded in 1985 by the local governor. The stress of the foundation was primarily on improving the socio-cultural habitats of the urban interior. The conservation project in 1986 directly led to the renovation and pedestrianisation of the area in 1990. Precautions were taken to enhance the area's attractiveness, particularly for the business sector. Transforming Tarlabası Street, which connects Taksim to the historical peninsula and extends westward along the boundary of the Galata-Pera zone, into a boulevard was a radical intervention (Eraydın & Demirdağ, 2017; Ertep, 2009; Maessen, 2022, 2024). The modifications affected the architectural composition and spatial layout. In 1993, Istiklal Street was fully pedestrianised. The pedestrian Istiklal Street, with Taksim Square, flourished as the hub; urban political actions, student protests, and demonstrations occurred in the area of historical *khans*, passages, and red trams that ran from the square along the area (Özakın, 2011; Sandıkçı, 2015; Sert & Tunçay, 2014).

Historical building textures have dominated the area's spatial use. In terms of the functional diversities, historical *khans* and passages shaped activities within the urban interior. Following the 2000s, urban transformations were driven by economic reorganisation, transportation-based developments, and globalisation (Eraydın & Demirdağ, 2017; Öz & Eder, 2012; Uluengin & Turgut, 2018). Due to the emergence of new activities within the changing social and cultural structure, the area witnessed a proliferation of new kinds of demonstrations and social gatherings. They began to redesign the multi-layered urban identities of the urban interior with the cooperation of

time and technology (Birkalan-Gedik, 2011; Ekmekci, 2014; Eren & Aktuğlu Aktan, 2025; Erkut & Shirazi, 2014; Shirazi & Erkut, 2014).

### 3. The Method: *Sensewalking*, a creative urban-investigation way

Merleau-Ponty's spatial conceptualisation of the heterogeneous character of the place indicates the spatial perception. The body inhabits the world through perception, senses, and action. The body's actions are the ultimate root of the experience, providing us with sensations in the urban interior. Everyday actions are movements that enable us to perceive the urban interior through sensory clues (Merleau-Ponty, 2004)—an urban interior whose spatial perception is linked to the senses through the body. Bodily experiences bring us spatial-temporal practices, as well as the fluidity and dynamic character of the place (Relph, 1997). We can sensorily adapt to our surroundings by exploring spatial objects as we move through a place (Fielding, 2014; Merleau-Ponty, 2004).

The urban interior is actively constituted by mobility, people's movement, actions, and senses. Walking is the most typical way for our bodily potential to explore the urban interior (Springgay & Truman, 2017). The multisensory urban experiences and embodied methodologies are closely related (O'Neill & Hubbard, 2010; Pink, 2015; Wunderlich, 2008). In this study, we employed *senswalking*, an urban investigation method, to explore the sensory dimensions of urban interiors. *Senswalking* began in the 1960s as an approach exploring physical and sensory urban experiences. It has since been used across disciplines for research, education, and documentation. Emerging during a rise in ecological perception and perceptual geography, *senswalking* involves studies such as soundwalks and *smellwalks* that engage participants in the research process (Adams & Askins, 2009; Bruce et al., 2015; Henshaw, 2013; Yue et al., 2024).

The technique emphasises multisensory experiences, with walking serving as a way to connect with and interpret a place through the body and senses. It requires walking in the urban interior while focusing on multisensory cues from the surrounding environment. The *senswalking* process typically involves a researcher conducting the fieldwork, and the walkers navigate the urban interior by following a specific direction or a set of points and nodes. The walk is undertaken solo, with more walkers, or as a group. During the process, walkers focus on one or more bodily senses to move beyond the hegemony of the visual. The sounds, scents, temperatures, textures, patterns, or building forms are focused on the study's theme.

We conducted three *senswalking* sessions (one solo *senswalking* and two group *senswalking*) in the Beyoğlu area. Walking was a potentially creative tool for investigating the multisensory urban experiences. A “solo *senswalking*” and two “group *senswalking*” sessions were applied in Beyoğlu, Istanbul's summer and autumn seasons. The walkers (study participants) walked and experienced the place on weekdays in July and October 2023 during the daytime, after providing informed written consent before the walks.

The walks were conducted by 45 adult participants of diverse ages and professional backgrounds; each walker participated in only one walk. Most of the walkers lived in Istanbul; just four were foreigners. As the basis for the *senswalking* fieldwork, participants (walkers) were required to walk the selected route (<https://maps.app.goo.gl/EpeebN2zsLobAyCh7>) and stop to discuss their multisensory experiences of the urban interior. One *senswalking* session took nearly three hours. The group *senswalking* was done on working days between 10 am and 1 pm. Two people (one male and one female) walked for a solo walk. The participants walked individually around the urban interior, focusing on the area's visual qualities, sounds, and haptic features. The facade materials, patterns, colours of the buildings, street layout, and scents and sounds were investigated. For the group *senswalking* sessions, 43 people (23 males and 20 females) walked along the route between Taksim Square, Galatasaray Square, and Tunnel Square (see Figure 4). The walkers observed the surroundings, took notes and described the experiences they witnessed. *Senswalking* was a dynamic process that captured the multisensory urban experiences, whether visual, aural, or haptic. The method was designed to understand how the walkers perceive the sensory dimensions of urban interiors.

**Figure 4.** The template of *senswalking*

The route of <i>senswalking</i> in Beyoğlu: <a href="https://maps.app.goo.gl/EpeebN2zsLobAyCh7">https://maps.app.goo.gl/EpeebN2zsLobAyCh7</a> Taksim Square-Istiklal Street-Galatasaray Square -Tunnel Square	
<b>couple <i>senswalking</i>:</b>	task: walking, observation, taking photos and notes
	focus: sounds, scents, temperatures, textures, patterns or building forms
	day: in weekdays of Oct 2023
	walkers: 43 adults (23 male and 20 female)
	nationality: 39 walkers are Turkish, 4 are non-Turkish
	time: between 10 am pm and 1 pm
<b>solo <i>senswalking</i>:</b>	task: walking, observation, taking photos and notes
	focus: sounds, scents, temperatures, textures, patterns or building forms
	day: in a weekday of July 2023
	walkers: 2 adults (one male and one female)
	nationality: 2 are Turkish
	time: between 5 pm and 8 pm

Source: Own elaboration, 2025.

We were aware that it was impossible to decode the totality of sensory experiences related to urban assemblages, nor was it possible to do so using either qualitative or quantitative methods. The age range of participants in the *senswalking* study was diverse, spanning from 18 to 64 years. Twenty-three male and twenty female adults participated in the group walks, while the solo walk was conducted by two adults (one male and one female). Each walk lasted nearly three hours, during which the walkers answered questions and took notes using the template provided to them beforehand. Familiarity with urban interiors can influence individual sensory experiences; in this study, a small percentage of the walkers experienced the area daily. We were unable to present the area's demographic diversity, as 41 of 45 walkers were Turkish. The solo and group walks focused on sensory urban experiences that extended beyond the visual. If the walks had been conducted at different times of day, the data on how walkers assess multisensory dimensions could have been extended. Psychological factors and biological aspects would affect the walks' sensory qualities, as they may provide extra advantages or disadvantages to evoke or provoke experiential responses. The walking-based method does not fully catch, record or decode all multisensory experiences of the area. Considering the relatively small sample of walkers (45 individuals), the result could not yield much information about the multisensory experiences that constitute the urban interiors in the area.

#### 4. The findings

The *senswalking* sessions in Beyoğlu uncovered how the district's historical layers, socio-cultural changes, and physical structures come together to create complex multisensory urban experiences. The results show that the area's visual, auditory, and tactile qualities are influenced not only by long-term urban transformation processes but also by walkers' active engagement with streets, passages, and architectural textures. Throughout the *senswalking* walks, participants consistently described Beyoğlu as a lively urban interior where sensory experiences build, merge, and influence one another, creating a unique experiential landscape that reflects both its historical continuity and ongoing urban transformation.

#### 4.1. Visual Findings

Walkers consistently emphasised the visual diversity of Beyoğlu as a key sensory aspect of the urban's interior. The district's historic *khans*, courtyards, and ornate building facades serve as major visual landmarks, representing its rich cultural history from the late Ottoman period (Cezar, 1991; Maessen, 2022). Participants described the facades as “textured”, “layered”, and “aged”, often highlighting the contrast between buildings that have been restored or renovated and those displaying signs of deterioration or material decay. This visual duality reflects broader urban changes since the 19th century, including top-down modernisation, large-scale demolitions, and renovation efforts that have altered its built environment (Demirakın, 2006; Ekdi & Çıracı, 2015; Tekeli, 2010).

The spatial arrangement—featuring narrow passages and corridors, brightly lit side streets, and spacious public squares—was perceived by pedestrians as an urban interior that continually unfolds and reveals itself through movement. The quality of passages and arcades enhances the experience of visual discovery, while Taksim Square and broader parts of İstiklal Street offer expansive, open views linked to social diversity and political activity (Özakın, 2011; Sandıkcı, 2015; Sert & Tunçay, 2014). Walkers' attention often shifts between prominent architectural features and small urban details such as posters, calligraphy, artworks, or shop displays, emphasising that the urban interior is a dynamic assemblage rather than a fixed, enclosed space (Dovey, 2009).

*Sensewalking* participants emphasised the vibrancy of commercial spaces, such as fashion stores, bookshops, cafes, and restaurants, as key visual elements. They observed that upper floors, courtyards, stairways, and transitional areas illustrate how spatial features enable layered and multifunctional uses. These insights highlight that the urban interior's visual experience is influenced not just by architecture but also by the socio-economic activities embedded in daily life.

#### 4.2. Auditory Findings

The auditory experience became essential to how pedestrians perceived Beyoğlu's sensory identity. The district was frequently described as polyphonic, with layered soundscapes reflecting its multicultural history, extensive transportation networks, and vibrant pedestrian activity. *Sensewalking* participants noticed a constant mix of mechanical noises, human activity, and natural sounds—like car horns, tram bells, footsteps, street musicians, seagulls, vendors' calls, and multiple languages spoken publicly. These sound patterns support theories that urban spaces are shaped by flows, movement, and interactions (Augé, 2020; Cuba & Hummon, 1993).

Two sound elements stood out as particularly symbolic: the ringing bell of the nostalgic red tram and the call to prayer (*ezan*) from Huseyin Aga Mosque. The tram bell served as a rhythmic sound cue, marking the walks and reinforcing a sense of time passing. The contrast between the *ezan* and church bells informs the district's multicultural sound history, highlighting the coexistence of mosques, churches, and synagogues in its architectural landscape. This layering of sounds created what participants described as a “harmonised urban interior”, aligning with research that indicates soundscapes derive meaning from cultural memory and lived experience (Bloomer et al., 1977).

Walkers noted that transportation infrastructure —such as metros, buses, taxis, and funiculars— adds a mechanical hum to Beyoğlu, creating a sense of perpetual motion. This stressed that the district's soundscape is closely linked to its mobility trends and urban modernisation efforts since the 20th century (Demirkol-Ertürk & Paker, 2014; Eraydın & Demirdağ, 2017).

#### 4.3. Haptic Findings

The haptic qualities of Beyoğlu were vividly expressed in participants' accounts of surfaces, temperatures, and the tactility of built forms. The material differences of marble, stone, concrete, polished restorations, and rough historical textures influenced how pedestrians physically experienced the environment. Many participants reported perceiving “cool”, “historical”, or

“ornated” surfaces through indirect bodily contact—such as leaning on walls, holding railings, brushing against passageway edges, or stepping across uneven pavements. These responses align with the idea that building materials serve as extensions of multisensory practice, mediating the tactile experience of urban assemblages (Mallgrave, 2012, 2013).

Walkers also noted microclimatic differences, such as temperature changes in passages, shifts in light and shadow, and spatial compression in narrow corridors. These factors shaped their embodied perception of movement, supporting Merleau-Ponty’s idea that bodily action is key to perceiving spatial variations (Fielding, 2014; Merleau-Ponty, 2004). Urban density, public seating niches, and textured street features such as cobblestones and uneven pavements intensified the tactile experience.

Through visual, auditory, and haptic observations, walkers described Beyoğlu as a rich, multisensory environment in which historical urban changes are perceptible through the senses. The results suggest that multisensory experiences are not isolated features, but somewhat interconnected aspects of how people perceive urban interiors. The *senswalking* results demonstrate that sensory encounters mediate cultural memory, social diversity, and the district’s evolving identity, reinforcing the concept of urban interiors as living, dynamic, and negotiated spaces (see Figure 5).

Figure 5. Multisensory experiences-based findings of Beyoğlu.

	Description	Sources/Locations	Sensory-spatial effects
<b>Visual Experiences</b>			
Architectural texture	Veteran shops, historical facades, Ottoman & Republican-era buildings.	Galatasaray Square	Continuity, recognisability
Passages, arches & courtyards	Labyrinthine, narrow, shady, circulation lines.	Alkazar cinema, Hazzopulo and Suriye Passages	Depth, orientation, interiority
Door & gates	Portals with varying historical styles.	Aleppo Passage, Narmanlı Khan	Embodied perception in entries
Interior surfaces	Materials, patterns, carved columns, murals.	Anthony of Padua Church, Flower Passage	Haptic richness via visual cues
Atmospheric light	Luminous walls, gloomy niches, dark corridors.	Side roads of Istiklal Street	Perceptual dualities of lighting
<b>Auditory Experiences</b>			
Religious buildings' spots	Coexistence of call to prayer sounds.	<i>Ezan</i> from mosques, church bells	Multicultural soundscape
Transportation hubs	Movement and urban mobility.	Tram bells, metro, taxis, buses	Urban rhythm
Street level	Dense sounds of everyday life.	Vendors, conversations, musicians	Social vibrancy
Natural environment	Non-human environmental sounds.	Birds, seagulls	Coastal effects
<b>Haptic Experiences</b>			
Materiality	Weighty, solid architectural materials.	Marble, stone, concrete	Embodied stability, durability
Surface ornamentation	Rich tactile history.	Columns, carvings, decorative facades	Cultural memory
Textures	Graffiti, murals, painted walls, irregular surfaces.	Side streets, passages	Tactile diversity
Built mass / solidity	Thick walls, dense structures.	Historical khans	Sense of enclosure
Spatial hapticity	Niches, street furniture, steps.	Parks, old entries	Everyday bodily encounters

Source: Own elaboration, 2025.

## 5. Discussion

### 5.1. Istanbul's Historical Urban Interior by the Visual, Auditory and Haptic Qualities

The critical factor in transforming the environment into an urban interior is based on experience (Cresswell, 1992; Gussow, 1971; Manzo & Devine-Wright, 2013). The phenomenological approach to urban interiors focuses on users' experiences (Norberg-Schulz, 1980; Relph, 1970). The experiences within the urban interior are the container of everyday life (Beidler & Morrison, 2016; Degen, 2008; Seamon, 2013; Trejo, 2011). Due to the complex nature of experiences, Taksim Square and Istiklal Street are socio-spatial clusters of urban interconnections, wherein urban interior identities and functional usages emerge from the flows between urban experiences. The sensory experiences of the urban interior generate a corporeal schema. The urban interior has its multisensory dimensions. The area has a recognisable texture, with veteran shops, small but well-designed cafes, and authentic restaurants. The labyrinth of narrow passages and the luminous atmosphere of the side streets that open onto the distinctive zones are productive on either side. The urban interior features a diverse range of atmospheres. The images below show us the

interior spaces of the long, gloomy passages in the area. The ornate interior surfaces, patterns, and building materials reveal the rich haptic identities in the urban interior (see Figure 6).

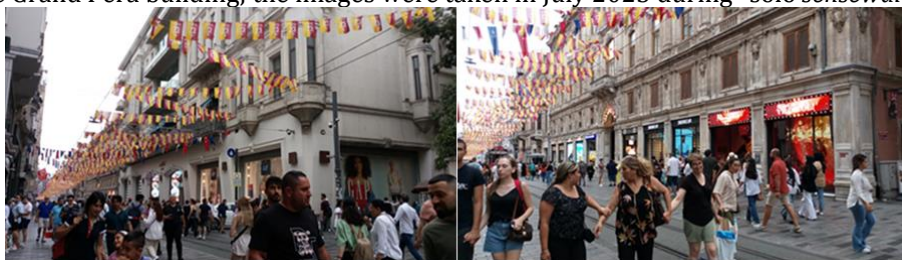
**Figure 6.** The narrow passages and courtyards in the area. The photos were taken in October 2023 during “group sensewalking” study.



Source: Own elaboration, 2025.

The multisensory experiences are rooted in place because urban affordances are provided to the inhabitants (Bachelard, 2014; Richardson, 2012). People perceive and decode their roles, expectations, and motivations through sensory experiences. The urban interior contains multisensory messages and meanings. (Rapoport, 1990). The interactions between the time and bodily experiences generate societal conditions through sensory encounters (Harvey, 2006; Massey, 2008). Taksim Square and Istiklal Street effectively promote social diversity, which is integral to Istanbul's urban life. The place is an urban interior of cosmopolitanism, shaped by the contributions of immigrants, minorities, the bourgeoisie, and artists of diverse origins. The urban interior reflects Istanbul's complicated socio-cultural evolution. The facades and remarkable gates have retained the late Ottoman-era architectural textures, although they underwent some restoration and renovation during the Republic of Turkey period. Historical buildings, such as tea houses and book cafes, dominated the social atmosphere. Historical passages, courtyards, and *khans* have shaped the area's unique visual image (see Figure 7).

**Figure 7.** The images show two historical *khans*. The left photo depicts Istiklal Avm, and the right photo reveals the Grand Pera building; the images were taken in July 2023 during “solo sensewalking” study.

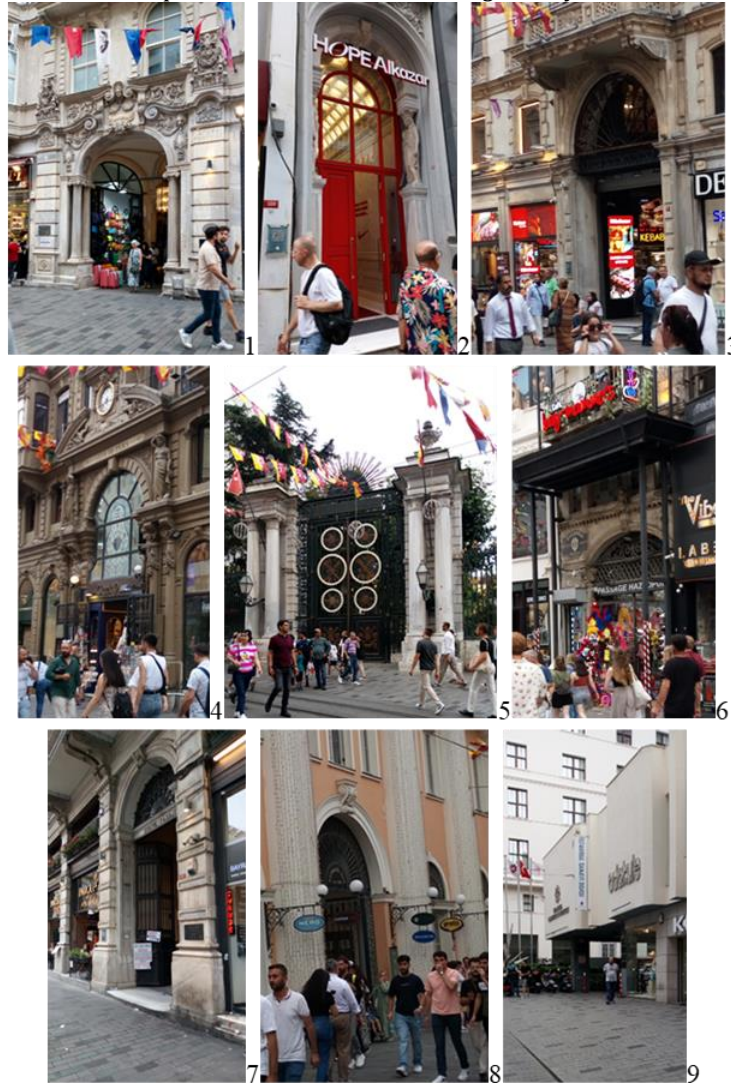


Source: Own elaboration, 2025.

The body is situated within the urban interior while inhabiting it through daily activities. Sensing the urban interior is described in terms of the relationship between people and bodily experiences. Affordance potentials of the urban interior shape users' bodily experiences (Casey, 2002; Najafi & Shariff, 2011). Unique outdoor seating, such as enclosed cafeterias and the niches in the thick walls of old buildings, is visible. The venues around the passages and *khans* have hosted many international art festivals, including the annual Istanbul Film Festival. The movie posters are colourful. The spatial practices and tactics have shaped the physical space in innovative and unique ways. In the zone, the borders between the private and public areas are fluid; the territory is an instrument with many undiscovered components. The medium features distinctive corridors and gates, offering a unique visual experience. Atriums showcase cafes and

art exhibits, while casual chatting areas, old bookstores, lottery ticket sellers, and interesting street vendors add to the ambience. The buildings have distinctive entries, each designed in a different architectural style (see Figure 8).

**Figure 8.** The images show the entries of Rumeli Khan (1), Alkazar cinema (2), Aleppo Passage (3) and Flower Passage (4), Galatasaray Highschool (5), Hazzopulo Passage (6), Suriye Passage (7), Narmanlı Khan (8), and Odakule (9). The photos were taken during the solo *senswalking* session in July 2023 as part of the “solo *senswalking*” study.



Source: Own elaboration, 2025.

The urban interior is characterised by continuous circulation, communication, and consumption, and is shaped by authentic sounds. Sensing the urban interior is influenced by its auditory qualities (Augé, 2020; Cuba & Hummon, 1993). A metro line, a funicular line, a tram line, bus stations, and taxis meet at the place. The terrain is not only an urban interior where sounds and voices cross through; it is sufficient to answer the question of what is distinctive about the urban interior. The area comprises various sounds with diverse backgrounds and exhibits a range of spatial activities. The place is filled with the sounds of car horns, bird songs, seagull screams, tram bells, street music, and human voices. Below, we see the Huseyin Aga Mosque (see Figure 9), from which the exceptional sound of *the ezan* (call to prayer for Muslims) emanates, and then we encounter the ringing of church bells within the urban interior.

**Figure 9.** The image shows Huseyin Aga Mosque (left) and St. Anthony of Padua Church (right) in Istiklal Street, July 2023, during “solo sensewalking” study.



Source: Own elaboration, 2025.

The auditory composition in the place makes vastly different senses of urban interior possible. We experience the urban interior as a place of harmony in terms of auditory characteristics. The urban interior is associated with the sounds that we attach to it (Bloomer et al., 1977). The authentic sounds of the area revealed the complementary layers of the auditory experiences. The area has unique auditory characteristics shaped by urban assemblages. The urban interior is where the voices of the urban assemblage converge. The tram's bell has been one of the urban icons of the place, creating a unique auditory composition. The auditory qualifications are influenced by the urban actors inherited from the past and shaped by the area's socio-cultural diversity.

The medium provides experiences through haptic encounters. Building materials are extensions of multisensory practices that filter and enhance the haptic elements. The region's texture characteristics result from its unique materiality and are distinguishable from other haptic elements. The building materials, such as marble, stone, and concrete, create a three-dimensional effect. The ornate surfaces, columns, and other features reflect the place's history. The renovated or restored facades are associated with capital-oriented urbanisation. The historical buildings alongside the new-style buildings create a rich sensory experience in the area. The haptic elements must be carefully integrated into additional urban interior design applications, and policies must consider the material characteristics of buildings. The area features various calligraphies, paintings, and murals along side streets (such as Asmalı Mescit Street), which can be considered proper instruments for creating multisensory dimensions (see Figure 10).

**Figure 10.** The figure shows the area's side streets. The colourful walls with graffiti and small street cafes make the side roads alive; photos were collected during “solo sensewalking” and “group sensewalking” studies.



Source: Own elaboration, 2025.

The case study revealed distinctive urban compositions of Beyoğlu in terms of sensory experiences. In Beyoğlu, spatial practices occur in the physical space that generate sensory experiences. The place features a range of fashion stores, restaurants, cafes, and bookstores that utilise the spaces on all floors of the buildings. Many spaces, such as courtyards within buildings,

narrow walkways, and areas between buildings and sidewalks, are informally and formally occupied for alternative purposes and by diverse users.

People seek arrangements that foster sensory urban experiences (Agnew, 2011; Panelli, 2003). The diversity in urban affordances is indispensable for the urban interior's visual, auditory, and haptic features, which are blended with its history, memory, and cultural heritage. The area has unique multisensory dimensions. The sounds, scents, and textures have created the spatial harmony of the urban interior. The authentic facades of the buildings have created unique visual sensory dimensions. The walkers, street vendors, the red tram's bell, and music coming from the old passages design the auditory features of the urban interior. Bodily experiences are situated within sensory coding in the urban interior, as urban assemblages. They shape the social production of spatiality and relations within spatial networks. The key elements of urban assemblages (see Figure 11) are the links between the urban interior and senses, perception, and bodily, lived, or individual experiences.

**Figure 11.** The figure illustrates sensory-spatial factors that shape the urban interior of Beyoğlu.

Urban Assemblages	How?	Who/What?	Outcome
<b>Cosmopolitan Social Fabric</b>	Multiple cultural groups shape identity.	Immigrants, minorities, artists, bourgeoisie	Multilayered social diversity
<b>Spatial Practices</b>	Everyday life tactics modify space.	Street vendors, festivals, posters	Informal urban design
<b>Public–Private Fluidity</b>	Borders remain soft and permeable.	Courtyards, passages, in-between spaces	Mutual links of close and open spaces
<b>Affordances</b>	Spatial features invite spatial actions.	Seating niches, corridors	Richness in spatial experiences
<b>Heritage &amp; Memory</b>	Historic and modern layers coexist.	Gates, facades and ornaments of the historical buildings	Continuity in architectural culture and intangible heritage
<b>Functional Connectivity</b>	Linked functions strengthen the perceived coherence of an urban interior.	Roads, street networks, circulation lines	Enhanced sense of continuity, orientation and rhythm of navigation
<b>Bodily Engagement</b>	Movements shape interior perception.	Kinaesthetic experiences	Deepened spatial familiarity and perception
<b>Material Qualities</b>	Material components create tactile distinctness of the place.	Textures and surfaces of the place	Supported sensory attachment and atmosphere
<b>Forms &amp; Proportions</b>	Building ratios and shapes design spatial probabilities	Windows, doors, dimensions of the buildings	Established connection with the place by enclosure, scale, rhythm of interiority
<b>Multisensory Integration</b>	Vision, sound and touch merge to produce the place's sensory engagement.	Elements of natural environment and built environment	Unique sensory character of the place
	<b>Elements</b>		<b>Effects</b>
<b>Haptic sensations</b>	Street textures, building surfaces, softness or sharpness of floor materials		Affects material authenticity, tactile experiences and kinaesthetic perception and bodily comfort
<b>Visual Components</b>	Colours, visual cues, visual compositions		Supports recognition, orientation in visual identity
<b>Auditory Features</b>	Sounds and soundscapes		Shapes acoustic identity and sound heritage

Source: Own elaboration, 2025.

## 5.2. Implications for Urban Policy and Design

The *senswalking* study shows that urban policy and design should go beyond visual conservation, focusing on experiential, embodied, and socio-cultural aspects of the city (Acar et al., 2023; Erbil

& Erbil, 2024). The district's sensory mix—including visual diversity, soundscapes, and textures—illustrates how historical and modern elements influence daily routines. These findings are crucial for policymakers, planners, and designers in culturally rich, densely populated urban areas.

The findings emphasise multisensory urban design, focusing on perception, navigation, and inhabitation. While Beyoğlu's historic architecture shapes its visual identity, experiences show sensory perception extends beyond sight (Tekin & Akgün Gültekin, 2017). Urban policies should adopt a multisensory approach, including auditory and tactile elements in conservation (Yetiskul et al., 2016). Sounds like the tram bell, call to prayer, and street music are vital cultural heritage. Protecting them requires managing noise pollution as both an environmental and cultural resource. Guidelines could include soundscape mapping and auditory heritage criteria for new developments.

The results emphasise the importance of understanding visual conservation beyond aesthetics, encompassing the material patina and tactile qualities of historic urban areas (Sınmaz & Altanlar, 2021; Türkün et al., 2022). Walkers appreciate the contrast between original textures and restorations, which enhances sensory richness. Excessively homogenising techniques, such as replacing features with uniform modern cladding, risk removing the tactile diversity that reflects the area's history. Thus, material-sensitive restoration policies are crucial, prioritising preservation of surface textures, patterns, and details, and involving haptic evaluation to maintain the urban environment's phenomenological essence.

The study emphasises the need to design for spatial complexity and sensory richness to boost walkers' engagement with the environment. The layered layout of narrow passages, courtyards, atriums, and side streets offers opportunities for sensory experiences and social interactions. Urban policies should aim to safeguard the district's micro-spatial diversity by resisting large-scale, uniform redevelopment that replaces detailed urban fabrics with simplistic blocks (Acar et al., 2023; Taşbaşı, 2023; Yetiskul et al., 2016). Instead, they could promote incremental, small-scale changes that maintain spatial porosity, keep passageways cosy, and support diverse uses across building floors. This strategy reflects assemblage thinking, viewing the urban interior as a lively network of interconnected elements that cannot be simplified into a single spatial pattern.

The study recommends that urban mobility policies consider the impact of transportation infrastructure on sensory experiences. Pedestrians' movement involves senses influenced by people, vehicles, trams, and sounds. Traffic management, pedestrian zones, and mobility initiatives should account for these multisensory effects. For instance, maintaining the nostalgic tram, which symbolises mobility and auditory heritage, emphasises the experiential and cultural roles of transportation. Pedestrian strategies should enhance sensory comfort with better pavement, lighting, and transitions.

The findings highlight the importance of participatory and sensory-based planning. The *senswalking* approach reveals that residents and users perceive the urban interior through a range of sensory impressions that traditional planning may overlook. Incorporating sensory ethnography, also known as *senswalking*, can provide planners with a detailed understanding of how different groups experience the district. This is especially relevant for Beyoğlu, with its diverse visitors, residents, and minority communities. Engaging people in sensory assessments helps identify which urban elements hold the most experiential value and should be preserved or enhanced.

Findings emphasise participatory, sensory-focused planning. *Senswalking* reveals residents' diverse sensory experiences, often overlooked in traditional planning. Sensory ethnography offers detailed insights that are crucial for Beyoğlu's diverse groups. Involving people in sensory evaluations identifies urban elements with the most experiential value for preservation or enhancement. The evidences indicate that Beyoğlu's multisensory aspects are key to its urban identity. Urban planning and design must adopt a holistic approach that considers sensory heritage, spatial complexity, embodied experiences, and socio-cultural diversity (Soyguzeloglu & Kürkcüoğlu, 2021; Türkün, 2022). Viewing the city as an experiential fabric rather than a static visual enhances planning, making it more equitable, sustainable, and meaningful within historic contexts.

## 6. Conclusions

From the mid-1980s to the present, Istanbul's urban interiors have been shaped by actions reflecting global challenges and neoliberal objectives. The assemblage idea helps to sketch the conception of urban interior. The study's focus, Beyoğlu, is a district in the city where diverse urban life experiences and socio-cultural encounters are concentrated. Comprehending the urban interior involves understanding multisensory urban experiences.

Walking, note-taking, observing, and photo-taking were combined in this study, utilising the *senswalking* in the fieldwork context. The approach created a multisensory process in which sensory urban experiences interacted with the urban interior, triggering the walkers' perception of the environment. The method was used to consider walkers' assessments as they experience and sense the place. The *senswalking* way was effective in capturing the diverse sensory aspects of the historical urban interior.

The discussion revealed the urban assemblages based on the interconnectivity and flows between architectural, socio-spatial and sensory elements. Taksim Square and Istiklal Street distinguish themselves from space, while the urban interiors connect the multisensory experiences to the sociality and spatiality of everyday life. People are immersed in the place, experiencing the urban interior through its multisensory qualities. The assembling urban features are both invisible and tangible. Mechanisms that design spatial usages, functions, and bodily movements shape sensory confrontations. Urban interiors become open and dynamic places; they are assemblages where integration among people, experience, and place works effectively. The study emphasised that urban assemblages should be studied as thoroughly as possible to see the experiential qualities. Assemblage-based attitudes are valuable for sensory urban interior design, planning and architecture.

The *senswalking* study reveals that Istanbul's historic districts, particularly Beyoğlu, require urban policies that emphasise multisensory and embodied aspects over purely visual or functional elements. Participants' awareness of visual diversity suggests that conservation efforts should extend beyond facades to include textures, materials, and spatial layouts that affect perception. As redevelopment accelerates, policies should protect tactile and atmospheric qualities in passages, courtyards, and narrow streets that shape urban identity. The diverse soundscape suggests that sound should be regarded as a cultural heritage - trams, street music, conversations, and calls to prayer all reflect multiculturalism. Soundscape analysis could help preserve auditory symbols amid noise from traffic, redevelopment, and tourism. Pedestrian-oriented design is vital; policies should prioritise walkability and connectivity over fragmented interventions. Small-scale practices influence multisensory perception; supporting local businesses and informal culture is key. Participatory tools, such as *senswalking*, can inform planning by capturing sensory experiences. Ultimately, maintaining Istanbul's identity relies on multisensory policies that protect cultural diversity, material authenticity, and embodied experiences.

## References

- Acar, Y., Demet, G., & Kaynar, M. (2023). Data and discourse: an assessment of Taksim urban design competition in terms of populism and participation. *Journal of Urban Design*, 28(6), 682-698. <https://doi.org/10.1080/13574809.2023.2182767>
- Adams, M., & Askins, K. (2009). Sensewalking: sensory walking methods for social scientists. In *Proceedings of the RGSIBG Annual Conference 2009, 26-28 August 2009*.
- Agnew, J. (2011). Space and place. *Handbook of geographical knowledge, 2011*, 316-331.
- Aksoy, A., & Robins, K. (2011). Changing urban cultural governance in Istanbul: The Beyoğlu plan. *Culture Policy and Management Research Centre*.
- Attiwill, S. (2011). Urban interior: Interior-making in the urban environment. In *Proceedings of the 2011 IDA Congress Taipei Education Conference* (pp. 217-224). Taiwan Design Center.
- Attiwill, S. (2020). Urban Interiors and Interiorities. In *Cultural, theoretical, and innovative approaches to contemporary interior design* (pp. 58-67). IGI Global Scientific Publishing.
- Augé, M. (2020). *Non-places: An introduction to supermodernity*. Verso Books.
- Bachelard, G. (2014). *The poetics of space*. Penguin.
- Bartu, A. (1999). Who owns the old quarters? Rewriting histories in a global era. *Istanbul. Between the Global and the Local*. Lanham, Md, Rowman and Littlefield Publishers, 31-44.
- Beidler, K. J., & Morrison, J. M. (2016). Sense of place: inquiry and application. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 9(3), 205-215. <https://doi.org/10.1080/17549175.2015.1056210>
- Birkalan-Gedik, H. (2011). Anthropological writings on urban Turkey: A historical overview. *Urban Anthropology and Studies of Cultural Systems and World Economic Development*, 1-66. <https://www.jstor.org/stable/41291337>
- Bloomer, K. C., Moore, C. W., Yudell, R. J., & Yudell, B. (1977). *Body, memory, and architecture*. Yale University Press.
- Bowden, S. (2020). Assembling agency: Expression, action, and ethics in Deleuze and Guattari's A thousand plateaus. *The Southern Journal of Philosophy*, 58(3), 383-400. <https://doi.org/10.1111/sjp.12384>
- Bruce, N., Condie, J., Henshaw, V., & Payne, S. R. (2015). Analysing olfactory and auditory sensescapes in English cities: Sensory expectation and urban environmental perception. *Ambiances. Environnement sensible, architecture et espace urbain*. <https://doi.org/10.4000/ambiances.560>
- Buchanan, I. (2017). Assemblage theory, or, the future of an illusion. *Deleuze Studies*, 11(3), 457-474. <https://doi.org/10.3366/dls.2017.0276>
- Bull, M. (2020). Sounding out the City: An auditory epistemology of urban experience. In *The auditory culture reader* (pp. 73-86). Routledge.
- Casey, E. S. (2002). *Representing place: landscape painting and maps*. U of Minnesota Press.
- Cezar, M. (1991). *XIX. yüzyıl Beyoğlusu*. Akbank.
- Cresswell, T. J. (1992). *In place/out of place: Geography, ideology and transgression*. The University of Wisconsin-Madison.
- Cuba, L., & Hummon, D. M. (1993). A place to call home: Identification with dwelling, community, and region. *Sociological Quarterly*, 34(1), 111-131. <https://doi.org/10.1111/j.1533-8525.1993.tb00133.x>
- Degen, M. M. (2008). *Sensing cities: Regenerating public life in Barcelona and Manchester*. Routledge.
- Degen, M. M., & Rose, G. (2012). The sensory experiencing of urban design: The role of walking and perceptual memory. *Urban studies*, 49(15), 3271-3287. <https://doi.org/10.1177/0042098012440463>
- DeLanda, M. (2016). *Assemblage theory*. Edinburgh University Press.
- Deleuze, G., & Parnet, C. (2007). *dialogues II*. Columbia University Press.
- Demirakın, N. I. (2006). *A study of Ottoman modernisation on the city: The sixth municipal district of Istanbul (1858-1877)* (Master's thesis, Bilkent Üniversitesi (Turkey)).

- Demirkol-Ertürk, Ş., & Paker, S. (2014). Beyoğlu/Pera as a translating site in Istanbul. *Translation Studies*, 7(2), 170-185. <https://doi.org/10.1080/14781700.2013.874538>
- Dewsbury, J. D. (2011). The Deleuze-Guattarian assemblage: plastic habits. *Area*, 43(2), 148-153. <https://www.jstor.org/stable/41240478>
- Dinçer, İ. (2011). The impact of neoliberal policies on historic urban space: Areas of urban renewal in Istanbul. *International planning studies*, 16(1), 43-60. <https://doi.org/10.1080/13563475.2011.552474>
- Dokmeci, V., & Ozus, E. (2005). Effects of revitalisation in historical city center of Istanbul. *International Real Estate Review*, 8(1), 144-159. <https://doi.org/10.1016/j.cities.2011.08.010>
- Dovey, K. (2009). *Becoming places: Urbanism/architecture/identity/power*. Routledge.
- Dovey, K. (2013). Assembling architecture. *Deleuze and architecture*, 131-148.
- Eberhard, J. P. (2007). *Architecture and the brain: A new knowledge base from neuroscience*. Greenway Communications/Östberg.
- Ekdi, F. P. Ö., & Çıracı, H. (2015). Cultural/creative industries in Istanbul: Beyoğlu case. *A/ Z ITU Journal of the Faculty of Architecture*, 12(1), 67-82.
- Ekmeçci, O. (2014). Contesting neo-liberal urbanism in Istanbul: The case of Taksim Square and beyond.
- Elicin, Y. (2014). Neoliberal transformation of the Turkish city through the Urban Transformation Act. *Habitat International*, 41, 150-155. <https://doi.org/10.1016/j.habitatint.2013.07.006>
- Enlil, Z. M. (2011). The neoliberal agenda and the changing urban form of Istanbul. *International Planning Studies*, 16(1), 5-25. <https://doi.org/10.1080/13563475.2011.552475>
- Eraydın, A., & Demirdağ, İ. (2017). *Dealing with Urban Diversity: The Case of Istanbul*.
- Erbil, A. Ö., & Erbil, T. (2024). Unveiling the role of the state in Istanbul's urban transformation: Insights from Galataport redevelopment. *Journal of Infrastructure, Policy and Development*, 8(11).
- Erem, Ö., & Şener, E. G. (2008). Complexity versus sustainability in urban space: The case of Taksim Square, Istanbul. *A/ Z ITU Journal of the Faculty of Architecture*, 5(01), 54-73.
- Eren, İ., & Aktuğlu Aktan, E. Ö. (2025). Decoding the socio-spatial mosaic of public space: an in-depth exploration of Taksim Square. *Planning Perspectives*, 40(2), 353-374. <https://doi.org/10.1080/02665433.2024.2420201>
- Erkut, G., & Shirazi, M. (2014). *Dimensions of urban re-development: The case of Beyoglu, Istanbul*.
- Ertepe, H. (2009). Chaos or homogenisation? The role of shop signs in transforming urban fabric in Beyoğlu, Istanbul. *Visual Communication*, 8(3), 263-272.
- Fielding, H. A. (2014). Maurice Merleau-Ponty. In *Film, Theory and Philosophy* (pp. 81-90). Routledge.
- Gallese, V. (2015). Architectural space from within. *Architecture and Empathy*, Routledge, 33-43.
- Grosz, E. (2003). Deleuze, theory, and space. *Log*, (1), 77-86.
- Gussow, A. (1971). *A sense of place: The artist and the American land*. New York: Friends of the Earth. The Seabury Press.
- Harvey, D. (2006). *Space as a keyword* (pp. 70-93). na.
- Henckel, D. (2019). Soundwalks as sensewalks: The case for integrated sensewalks. *Inter-Noise and Noise-Con Congress and Conference Proceedings*, 259(6), 2995-3005.
- Henshaw, V. (2013). *Urban smellscapes: Understanding and designing city smell environments*. Routledge.
- Henshaw, V. A., & Cox, T. J. M. (2009). Researching urban olfactory environments and place through sensewalking. In *PhD Colloquium on 'Understanding Places'*.
- Howes, D. (2006). Charting the Sensorial Revolution. *The Senses and Society*, 1(1), 113-128. <https://doi.org/10.2752/174589206778055673>
- Howes, D., & Classen, C. (2013). *Ways of sensing: Understanding the senses in society*. Routledge.
- Jackson, J. B. (1994). A sense of place, a sense of time. *Design Quarterly*, (164), 24-27.
- Jive'n, G., & Larkham, P. J. (2003). Sense of place, authenticity and character: A commentary. *Journal of urban design*, 8(1), 67-81.

- Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of environmental psychology, 21*(3), 233-248.
- Kentel, K. M. (2018). *Assembling 'Cosmopolitan' Pera: an infrastructural history of late ottoman İstanbul* (Doctoral dissertation).
- Lefebvre, H. (2012). From the production of space. In *Theatre and performance design* (pp. 81-84). Routledge.
- Leveratto, J. (2019). Urban interiors: a retroactive investigation. *Journal of Interior Design, 44*(3), 161-171. <https://doi.org/10.1111/joid.12153>
- Lynch, K. (1995). *City sense and city design: writings and projects of Kevin Lynch*. MIT press.
- Mace, V. (2014). Sensing the urban interior.
- Maessen, E. (2021). Beyoğlu Reconsidered. *Journal of the Ottoman and Turkish Studies Association, 8*(1), 45-67.
- Maessen, E. (2022). *Representing Modern Istanbul: Urban History and International Institutions in Twentieth Century Beyoğlu*. Bloomsbury Publishing.
- Maessen, E. (2024). The Beyoğlu District between Resilience and Conflict 1950–2010. *Constantinople through the Ages: The Visible City from Its Foundation to Contemporary Istanbul, 8*, 360. [https://doi.org/10.1163/9789004710986\\_016](https://doi.org/10.1163/9789004710986_016)
- Mallgrave, H. F. (2012). Should Architects Care about Neuroscience?. *Architecture and Neuroscience: A Tapio Wirkkala-Rut Bryk Design Reader, ed. P. Tidwell (Espoo: Tapio Wirkkala Rut Bryk Foundation)*, 23-42.
- Mallgrave, H. F. (2013). *Architecture and embodiment: the implications of the new sciences and humanities for design*. Routledge.
- Malpas, J. (2013). *Rethinking dwelling: Heidegger and the question of place*. Enigma: He Aupiki.
- Malpas, J. (2017). *Heidegger and the Thinking of Place: Explorations in the Topology of Being*. MIT Press.
- Manzo, L., & Devine-Wright, P. (2013). *Place attachment: Advances in theory, methods and applications*. Routledge.
- Massey, D. (2008). A global sense of place. In *The cultural geography reader* (pp. 269-275). Routledge.
- Mattern, S. (2008). Silent, invisible city: Mediating urban experience for the other senses. *Mediacity: Situations, practices and encounters*, 155-176.
- Medway, D. (2014). Rethinking place branding and the “other” senses. In *Rethinking place branding: Comprehensive brand development for cities and regions* (pp. 191-209). Cham: Springer International Publishing.
- Merleau-Ponty, M. (1965). Phenomenology of perception. *Translated by Colin Smith*.
- Merleau-Ponty, M. (2004). *Maurice Merleau-Ponty: Basic Writings*. Psychology Press.
- Mutman, D., & Turgut, H. (2018). Colliding urban transformation process: The case of Historical Peninsula, Istanbul. *ArchNet-IJAR: International Journal of Architectural Research, 12*(1), 164-181.
- Najafi, M., & Shariff, M. K. B. M. (2011). The concept of place and sense of place in architectural studies. *International Journal of Humanities and Social Sciences, 5*(8), 1054-1060.
- Norberg-Schulz, C. (1980). Genius loci: towards a phenomenology of architecture.
- O'Neill, M., & Hubbard, P. (2010). Walking, sensing, belonging: Ethno-mimesis as performative praxis. *Visual Studies, 25*(1), 46-58.
- Öz, Ö., & Eder, M. (2012). Rendering Istanbul's periodic bazaars invisible: reflections on urban transformation and contested space. *International Journal of Urban and Regional Research, 36*(2), 297-314.
- Özakın, E. Ö. (2011). *Space, identity, and abjection: Purification of Beyoğlu* (Doctoral dissertation, Bilkent Üniversitesi (Turkey)).
- Özbek, B. (2020). *Beyoğlu-İstiklal Caddesi'nin 1970 Sonrası Dönüşümü Üzerine Mimari Değerlendirmeler* (Master's thesis, Fatih Sultan Mehmet Vakıf Üniversitesi, Lisansüstü Eğitim Enstitüsü).

- Maessen, E. (2017). Reading Landscape in Beyoğlu and Tarlabasi: Engineering a 'Brand New'Cosmopolitan Space, 1980–2013. *International Journal for History, Culture and Modernity*, 5(1), 47-67.
- Ozus, E., Turk, S. S., & Dokmeci, V. (2011). Urban restructuring of Istanbul. *European Planning Studies*, 19(2), 331-356.
- Pallasmaa, J. (2011). *The embodied image: Imagination and imagery in architecture*. John Wiley & Sons.
- Panelli, R. (2003). *Social geographies: from difference to action*.
- Paramita, S., Reyes, C., Duarte, D., Rojas, H., Perez, A., Erkut, G., & Shirazi, M. R. (2014). Commuting dynamics in Istiklal Street. *Dimensions of urban redevelopment, the case of Beyoğlu*, 197-223.
- Pink, S. (2015). Doing sensory ethnography.
- Poot, T., De Vos, E., & Van Acker, M. (2018). Thinking beyond dualities in public space: The unfolding of urban interiority as a set of interdisciplinary lenses. *Interiors*, 9(3), 324-345. <https://doi.org/10.1080/20419112.2019.1622235>
- Poot, T., Van Acker, M., & De Vos, E. (2015). The Public Interior: The meeting place for the urban and the interior. *Idea Journal*, 15(1), 44-55. <https://doi.org/10.37113/ideaj.vi0.52>
- Rapoport, A. (1990). *The meaning of the built environment: A nonverbal communication approach*. University of Arizona Press.
- Relph, E. (1970). An inquiry into the relations between phenomenology and geography. *Canadian Geographer/Le Géographe canadien*, 14(3), 193-201.
- Relph, E. (1997). Sense of place. *Ten geographic ideas that changed the world*, 205-226.
- Richardson, J. (2012). *Heidegger*. Routledge.
- Rodriguez, M. A., & Azenha, A. L. (2014). Understanding the urban context. *Dimensions of urban redevelopment—The case of Beyoğlu, Istanbul*.
- Salah Ouf, A. M. (2001). Authenticity and the sense of place in urban design. *Journal of Urban Design*, 6(1), 73-86.
- Sandıkcı, Ö. (2015). Strolling through Istanbul's Beyoğlu: In-between difference and containment. *Space and Culture*, 18(2), 198-211.
- Seamon, D. (2013). Place attachment and phenomenology. *Place attachment: Advances in theory, methods and applications*, 12-22.
- Sert, E., & Tunçay, H. E. (2014). Cities, Social Cohesion and the Environment: The Case of Taksim Square, İstanbul. *New Opportunities and Impasses: Theorizing and Experiencing Politics*, 136.
- Sheller, M., & Urry, J. (2004). Places to play, places in play. In *Tourism mobilities* (pp. 13-22). Routledge.
- Shirazi, M. R., & Erkut, G. (2014). Taksim, the metaphor. *Erkut, G. & Shirazi, MR Dimensions of urban redevelopment, the case of Beyoglu, Istanbul*, 224-229.
- Simonsen, K. (2005). Bodies, sensations, space and time: The contribution from Henri Lefebvre. *Geografiska Annaler: Series B, Human Geography*, 87(1), 1-14.
- Sınmaz, S., & Altanlar, A. (2021). Culture-led urban transformation strategies for industrial heritage and industrial areas in Istanbul. *ICONARP International Journal of Architecture and Planning*, 9(2), 1010-1035.
- Soja, E. W. (2008). Thirdspace: Toward a new consciousness of space and spatiality. In *Communicating in the third space* (pp. 63-75). Routledge.
- Soyguzeloglu, B., & Kürkçüoğlu, E. (2021). Pandemi Sürecinde Kentsel Mekânı ve Gündelik Yaşam Pratiklerini Ritimanaliz ile Okumak: İstiklal Caddesi Örneği. *İDEALKENT*, (COVID-19 Sonrası Kentsel Kamusal Mekânların Dönüşümü), 244-276.
- Springgay, S., & Truman, S. E. (2017). *Walking methodologies in a more-than-human world: WalkingLab*. Routledge.
- Sugiarto, E., Halim, A., Syarif, M. I., Nashiroh, P. K., & Febriani, M. (2023). Between Aesthetics and Functions: Use of Traditional Batik Motifs in Urban Interiors in Indonesia. *ISVS E-Journal*, 10(7), 62-76.

- Taşbaşı, K. (2023). Kültür Yoluyla Kentin Pazarlanması Örneği Olarak Beyoğlu Kültür Yolu Festivali. *Global Media Journal: Turkish Edition*, 13(26).
- Tekeli, İ. (2010). The story of Istanbul's modernisation. *Architectural Design*, 80(1), 32-39.
- Tekin, İ., & Akgün Gültekin, A. (2017). Rebuilding of Beyoğlu-Istiklal Street: A comparative analysis of urban transformation through sections along the Street 2004-2014.
- Thibaud, J. P. (2011). The three dynamics of urban ambiances. *Sites of sound: Of architecture and the ear*, 43-53.
- Thrift, N. (2004). Movement-space: The changing domain of thinking resulting from the development of new kinds of spatial awareness. *Economy and society*, 33(4), 582-604.
- Trejo, G. A. (2011). *Memorable Experiences in Architecture: Understanding How Buildings Affect People Emotionally* (Doctoral dissertation, University of Sheffield, School of Architecture).
- Tuan, Y. F. (1975). Place: an experiential perspective. *Geographical review*, 151-165.
- Tuan, Y. F. (1997). Sense of place: what does it mean to be human?. *American journal of theology & philosophy*, 47-58.
- Türkün, A. (2022). Beyoğlu Bölgesinin Büyük Altyapı Projeleri ve Öncü (Flagship) Projelerle İmtihani. *Hertalan EU Strips*, 16.
- Türkün, A., Sarıoğlu, A., Çarıkçı, Ç., Çetin, R., İbişoğlu, Ç., Kırpık, E., & Uzgören, G. (2022). Beyoğlu'nda Dönüşüm ve Tektipleşme. *İPA İstanbul Kent Araştırmaları ve Düşünce Dergisi. Sayı, 4*, 88-93.
- Uluengin, D. M., & Turgut, H. (2018). Colliding urban transformation process: the case of historical peninsula, Istanbul. *Archnet-IJAR International Journal Of Architectural Research*.
- Woodall, G. C. (2008). *Sensing the city: Sound, movement, and the night in 1920s Istanbul* (Doctoral dissertation, New York University).
- Wunderlich, F. (2008). Walking and rhythmicity: Sensing urban space. *Journal of urban design*, 13(1), 125-139.
- Yaneva, A. (2009). *The making of a building: A pragmatist approach to architecture*. Peter Lang.
- Yetiskul, E., Kayasü, S., & Ozdemir, S. Y. (2016). Local responses to urban redevelopment projects: The case of Beyoğlu, Istanbul. *Habitat international*, 51, 159-167.
- Yucesoy, E. (2008). Contested public spaces vs. conquered public places, Gentrification and its reflections on urban public space in Istanbul. *Public Istanbul*, 29-48.
- Yue, R., Lindborg, P., Ikeshiro, R., & Gui, R. (2024). Multimodal Hong Kong: Perceiving pedestrian footbridge spaces in a high-density area through sensewalking.